



# STIC Search Report

## EIC 3700

STIC Database Tracking Number: 111544

**TO: Mitra Aryanpour**  
**Location: cp2 10b18**  
**Art Unit: 3711**  
**Friday, January 09, 2004**

**Case Serial Number: 09/582556**

**From: Emory Damron**  
**Location: EIC 3700**  
**CP2-2C08**  
**Phone: 305-8587**

**Emory.Damron@uspto.gov**

### Search Notes

Dear Mitra,

Please find below an inventor search in the bibliographic and full-text foreign patent files, as well as keyword searches in the patent and non-patent literature files, both bibliographic and full text.

References of potential pertinence have been tagged, but please review all the packets in case you like something I didn't.

In addition to searching on Dialog, I also searched Google catalogs and EPO/JPO/Derwent.

I found a few references not on your list; I hope they are of some help.

Please contact me if I can refocus or expand any aspect of this case.

I hope you are feeling better.

Happy New Year!

Sincerely,

Emory Damron

Technical Information Specialist

EIC 3700, US Patent & Trademark Office

Phone: (703) 305-8587/ Fax: (703) 306-5915

Emory.damron@uspto.gov





# STIC Search Results Feedback Form

**EIC 3700**

Questions about the scope or the results of the search? Contact *the EIC searcher or contact:*

John Sims, EIC 3700 Team Leader  
308-4836, CP2-2C08

## Voluntary Results Feedback Form

➤ I am an examiner in Workgroup:  Example: 3730

➤ Relevant prior art **found**, search results used as follows:

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature  
(journal articles, conference proceedings, new product announcements etc.)

➤ Relevant prior art **not found**:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to STIC/EIC3700 CP2 2C08



Set	Items	Description
S1	0	AU=(VAN())ASSELT J? OR VAN()ASSELT, J? OR VAN()ASSELT J OR - VAN()ASSELT, J OR VAN()ASSELT J. OR VAN()ASSELT, J. OR VAN()A- SSELT JA OR VAN()ASSELT, JA OR VAN()ASSELT J.A. OR VAN()ASSEL- T, J.A. OR VAN()ASSELT JAN OR VAN()ASSELT, JAN)
S2	1	AU=(VANASSELT J? OR VANASSELT, J? OR VANASSELT J OR VANASS- ELT, J OR VANASSELT J. OR VANASSELT, J. OR VANASSELT JA OR VA- NASSELT, JA OR VANASSELT J.A. OR VANASSELT, J.A. OR VANASSELT JAN OR VANASSELT, JAN)
S3	0	(JAN OR ABRAHAM) (2N) (VANASSELT OR VAN()ASSELT)
S4	76347	IC=A63B?
S5	0	S2 AND S4

? show files

File 347:JAPIO Oct 1976-2003/Sep(Updated 040105)

(c) 2004 JPO & JAPIO

File 350:Derwent WPIX 1963-2004/UD,UM &UP=200402

(c) 2004 Thomson Derwent

2/3,AU/1 (Item 1 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2004 Thomson Derwent. All rts. reserv.

004837434

WPI Acc No: 1986-340775/198652

XRAM Acc No: C86-147707

XPX Acc No: N86-254313

**Multi-passage plate-type heat exchanger - formed by pressured expansion  
of spot welded metal sheets**

Patent Assignee: MUELLER P CO (MUEL-N)

Inventor: MUELLER P; SHIREY P G; UGES P G H; VANASSELT J G J ; WAYNICK W R

Number of Countries: 011 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 206416	A	19861230	EP 86201052	A	19860617	198652 B

Priority Applications (No Type Date): US 85795212 A 19851105; US 85745847 A  
19850617

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 206416	A	E	6		

Designated States (Regional): AT BE CH DE FR GB IT LI LU NL SE

? ds

Set	Items	Description
S1	0	AU=(VAN())ASSELT J? OR VAN()ASSELT, J? OR VAN()ASSELT J OR - VAN()ASSELT, J OR VAN()ASSELT J. OR VAN()ASSELT, J. OR VAN()A- SSELT JA OR VAN()ASSELT, JA OR VAN()ASSELT J.A. OR VAN()ASSEL- T, J.A. OR VAN()ASSELT JAN OR VAN()ASSELT, JAN)
S2	0	AU=(VANASSELT J? OR VANASSELT, J? OR VANASSELT J OR VANASS- ELT, J OR VANASSELT J. OR VANASSELT, J. OR VANASSELT JA OR VA- NASSELT, JA OR VANASSELT J.A. OR VANASSELT, J.A. OR VANASSELT JAN OR VANASSELT, JAN)
S3	6	(JAN OR ABRAHAM) (2N) (VANASSELT OR VAN()ASSELT)
S4	9900	IC=A63B?
S5	6	S3 AND S4 .

? show files

File 348:EUROPEAN PATENTS 1978-2003/Dec W02

(c) 2003 European Patent Office

File 349:PCT FULLTEXT 1979-2002/UB=20031225,UT=20031218

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5/5,K/1 (Item 1 from file: 348)  
DIALOG(R)File 348:EUROPEAN PATENTS  
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01484642

**BALL GAME APPARATUS**  
**BALLSPIELVORRICHTUNG**  
**APPAREIL DE JEUX DE BALLE**

PATENT ASSIGNEE:

Van Asselt, Jan Abraham, (2807631), 10 Stangrave Hall,  
Bletchingley Road, Godstone, Surrey RH9 8NB, (GB), (Applicant  
designated States: all

INVENTOR:

Van Asselt, Jan Abraham, 10 Stangrave Hall, Bletchingley Road,  
Godstone, Surrey RH9 8NB, (GB

LEGAL REPRESENTATIVE:

Fry, Alan Valentine et al (47772), Fry Heath & Spence LLP, The Gables,  
Massetts Road, Horley, Surrey RH6 7DQ, (GB)

PATENT (CC, No, Kind, Date): EP 1353731 A1 031022 (Basic)  
WO 2002041955 020530

APPLICATION (CC, No, Date): EP 2001980722 011106; WO 2001GB4919 011106

PRIORITY (CC, No, Date): GB 28454 001122

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;  
LU; MC; NL; PT; SE; TR

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: A63B-069/00

NOTE:

No A-document published by EPO

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 021106 A1 International application. (Art. 158(1))

Application: 021106 A1 International application entering European  
phase

Application: 031022 A1 Published application with search report

Examination: 031022 A1 Date of request for examination: 20030616

LANGUAGE (Publication,Procedural,Application): English; English; English

PATENT ASSIGNEE:

Van Asselt, Jan Abraham, (

INVENTOR:

Van Asselt, Jan Abraham,

INTERNATIONAL PATENT CLASS: A63B-069/00

5/5,K/2 (Item 2 from file: 348)  
DIALOG(R)File 348:EUROPEAN PATENTS  
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01242113

**BALL GAME APPARATUS**  
**BALLSPIELGERAT**  
**MACHINE POUR JEU A BALLE**

PATENT ASSIGNEE:

Van Asselt, Jan Abraham, (2807631), 10 Stangrave Hall,  
Bletchingley Road, Godstone, Surrey RH9 8NB, (GB), (Applicant  
designated States: all

INVENTOR:

Van Asselt, Jan Abraham, 10 Stangrave Hall, Bletchingley Road,  
Godstone, Surrey RH9 8NB, (GB

LEGAL REPRESENTATIVE:

Fry, Alan Valentine (47775), FRY HEATH & SPENCE The Old College 53 High Street, Horley Surrey RH6 7BN, (GB)  
PATENT (CC, No, Kind, Date): EP 1181077 A1 020227 (Basic)  
WO 200074801 001214  
APPLICATION (CC, No, Date): EP 2000935333 000525; WO 2000GB2008 000525  
PRIORITY (CC, No, Date): GB 9912763 990602  
DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT  
EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI  
INTERNATIONAL PATENT CLASS: A63B-069/00 ; A63B-069/36  
CITED PATENTS (WO A): GB 201645 A ; US 4944513 A ; US 3460391 A ; GB 169578 A ; WO 9934884 A ; US 3630521 A ; US 3754761 A ; US 5762562 A ; DE 8804865 U ; GB 115588 A

NOTE:

No A-document published by EPO  
LEGAL STATUS (Type, Pub Date, Kind, Text):  
Application: 010207 A1 International application. (Art. 158(1))  
Application: 010207 A1 International application entering European phase  
Application: 020227 A1 Published application with search report  
Examination: 020227 A1 Date of request for examination: 20011211  
LANGUAGE (Publication, Procedural, Application): English; English; English

PATENT ASSIGNEE:

Van Asselt , Jan Abraham , (

INVENTOR:

Van Asselt , Jan Abraham ,

INTERNATIONAL PATENT CLASS: A63B-069/00 ...

... A63B-069/36

5/5,K/3 (Item 3 from file: 348)  
DIALOG(R)File 348:EUROPEAN PATENTS  
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01071041

**BALL GAME APPARATUS**

**BALLSPIELGERAT**

**APPAREIL POUR JEUX DE BALLE**

PATENT ASSIGNEE:

Van Asselt , Jan Abraham , (2807630), The Spinney, Mynthurst, Leigh , Reigate, Surrey RH2 8RJ, (GB), (Proprietor designated states: all

INVENTOR:

Van Asselt , Jan Abraham , The Spinney, Mynthurst, Leigh, Reigate, Surrey RH2 8RJ, (GB

LEGAL REPRESENTATIVE:

Fry, Alan Valentine et al (47775), FRY HEATH & SPENCE The Old College 53 High Street, Horley Surrey RH6 7BN, (GB)

PATENT (CC, No, Kind, Date): EP 1044042 A1 001018 (Basic)

EP 1044042 B1 020327

WO 9934884 990715

APPLICATION (CC, No, Date): EP 99900061 990104; WO 99GB1 990104

PRIORITY (CC, No, Date): GB 9800015 980103

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE

INTERNATIONAL PATENT CLASS: A63B-069/38 ; A63B-069/36

CITED PATENTS (EP B): DE 8804865 U; US 3086775 A; US 3114549 A; US 3630521 A; US 4138107 A

CITED PATENTS (WO A): US 4138107 A ; US 3630521 A

NOTE:

No A-document published by EPO  
LEGAL STATUS (Type, Pub Date, Kind, Text):  
Application: 001018 A1 Published application with search report  
Application: 990915 A1 International application. (Art. 158(1))  
Lapse: 030507 B1 Date of lapse of European Patent in a  
contracting state (Country, date): AT  
20020327, CH 20020327, LI 20020327, GR  
20020327,  
Oppn None: 030319 B1 No opposition filed: 20021230  
Grant: 020327 B1 Granted patent  
Examination: 001018 A1 Date of request for examination: 20000721  
Examination: 010110 A1 Date of dispatch of the first examination  
report: 20001127  
Lapse: 030226 B1 Date of lapse of European Patent in a  
contracting state (Country, date): AT  
20020327,  
Lapse: 030416 B1 Date of lapse of European Patent in a  
contracting state (Country, date): AT  
20020327, CH 20020327, LI 20020327,  
Application: 990915 A1 International application entering European  
phase

LANGUAGE (Publication,Procedural,Application): English; English; English  
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	200213	420
CLAIMS B	(German)	200213	448
CLAIMS B	(French)	200213	530
SPEC B	(English)	200213	1740
Total word count - document A			0
Total word count - document B			3138
Total word count - documents A + B			3138

PATENT ASSIGNEE:

Van Asselt , Jan Abraham , (  
INVENTOR:  
Van Asselt , Jan Abraham ,  
INTERNATIONAL PATENT CLASS: A63B-069/38 ...  
... A63B-069/36

5/5,K/4 (Item 1 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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00908194 \*\*Image available\*\*

**BALL GAME APPARATUS**

**APPAREIL DE JEUX DE BALLE**

Patent Applicant/Inventor:

VAN ASSELT Jan Abraham , 10 Stangrave Hall, Bletchingley Road,  
Godstone, Surrey RH9 8NB, GB, GB (Residence), GB (Nationality)

Legal Representative:

FRY Alan Valentine (et al) (agent), Fry Heath & Spence, The Old College,  
53 High Street, Horley, Surrey RH6 7BN, GB,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200241955 A1 20020530 (WO 0241955)  
Application: WO 2001GB4919 20011106 (PCT/WO GB0104919)  
Priority Application: GB 200028454 20001122

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU  
CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP



KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PH PL PT RO RU  
SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW  
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR  
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG  
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW  
(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: A63B-069/00

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 4137

#### English Abstract

Apparatus for improving the skills of a sports person comprises two diverging guidelines at least one of which is resilient and tensioned. A reciprocating line extends between and is connected to each guideline whose length is equal to or greater than the minimum spacing of the guidelines and less than the maximum spacing of the guidelines. A ball is connected to and generally coaxial with the reciprocating line, the arrangement being such that when the ball is struck the reciprocating line is moved by its connection with the ball along the guidelines in the direction of their divergence until restrained from further movement by forces imposed on the line caused by the increased spacing between the guidelines and stretching of the resilient guideline(s). The ball and reciprocating line are returned to their starting positions (or positions close thereto) along the guidelines in the direction of their convergence through reactive forces generated between the reciprocating line and the resilient guideline(s).

#### French Abstract

L'invention concerne un appareil destine a ameliorer les capacites d'un sportif, comportant deux fils de guidage divergents, dont un au moins est souple et tendu. Un fil a mouvement alternatif s'etend entre ces deux fils de guidage et est relie a chacun d'eux, sa longueur etant egale ou superieure a l'espacement minimum des fils de guidage et inferieure a l'espacement maximum de ces derniers. Une balle est reliee au fil a mouvement alternatif et est generalement coaxiale de celui-ci, le dispositif etant tel que, lorsque la balle est frappee, le fil a mouvement alternatif se deplace, par l'intermediaire de son rattachement avec la balle, le long des fils de guidage, dans le sens de leur divergence, jusqu'a ce qu'elle ne puisse plus se deplacer en raison de forces s'exerçant sur elle, ces forces etant causees par l'espacement croissant entre les fils de guidage et l'etirement du/des fil(s) de guidage. La balle et le fil a mouvement alternatif reviennent a leur position de depart (ou a une position proche de celle-ci), le long des fils de guidage, dans le sens de leur convergence, par l'intermediaire de couples de rappel crees entre le fil a mouvement alternatif et le/les fil(s) de guidage souple(s).

Legal Status (Type, Date, Text)

Publication 20020530 A1 With international search report.

Publication 20020530 A1 Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

Examination 20021219 Request for preliminary examination prior to end of 19th month from priority date

Patent Applicant/Inventor:

VAN ASSELT Jan Abraham ,

Main International Patent Class: A63B-069/00

5/5,K/5 (Item 2 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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00761693 \*\*Image available\*\*

**BALL GAME APPARATUS**

**MACHINE POUR JEU A BALLE**

Patent Applicant/Inventor:

**VAN ASSELT Jan Abraham** , 10 Stangrave Hall, Bletchingley Road,  
Godstone, Surrey RH9 8NB, GB, GB (Residence), GB (Nationality)

Legal Representative:

Fry Alan Valentine, Fry Heath & Spence, The Old College, 53 High Street,  
Horley, Surrey RH6 7BN, GB

Patent and Priority Information (Country, Number, Date):

Patent: WO 200074801 A1 20001214 (WO 0074801)

Application: WO 2000GB2008 20000525 (PCT/WO GB0002008)

Priority Application: GB 9912763 19990602

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE

DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC

LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI

SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: A63B-069/00

International Patent Class: A63B-069/36

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 3450

**English Abstract**

Apparatus for practising the technique of lofting a ball comprises a support frame containing two upright supports linked by a horizontal cross-bar. Two inclined guideways extend between ground anchors and the supports. A substantially inelastic reciprocating means is connected to and freely movable along the guideways and a ball connected to said reciprocating means.

**French Abstract**

Cette invention concerne un appareil qui permet de s'exercer a la technique du lancer de balle en hauteur, et qui comprend un cadre de support comprenant deux supports droits relies par une barre transversale horizontale. Deux elements de guidage sont prevus entre les ancrages au sol et les supports. Un systeme essentiellement inelastique et capable d'effectuer un mouvement de va-et-vient est connecte aux guides et peut se deplacer librement le long de ces derniers, tandis qu'une balle est reliee audit systeme effectuant un va-et-vient.

Legal Status (Type, Date, Text)

Publication 20001214 A1 With international search report.

Examination 20010208 Request for preliminary examination prior to end of  
19th month from priority date

Patent Applicant/Inventor:

**VAN ASSELT Jan Abraham ,**  
Main International Patent Class: **A63B-069/00**  
International Patent Class: **A63B-069/36**

5/5,K/6 (Item 3 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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00503532 \*\*Image available\*\*

**BALL GAME APPARATUS**

**APPAREIL POUR JEUX DE BALLES**

Patent Applicant/Assignee:

**VAN ASSELT Jan Abram**

Inventor(s):

VAN ASSELT Jan Abram,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9934884 A1 19990715

Application: WO 99GB1 19990104 (PCT/WO GB9900001)

Priority Application: GB 9815 19980103

Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES  
FI GB GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD  
MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US  
UZ VN YU ZW GH GM KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE  
CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN  
GW ML MR NE SN TD TG

Main International Patent Class: **A63B-069/38**

International Patent Class: **A63B-069/36**

Publication Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 2801

**English Abstract**

Apparatus for use in playing and practising ball games, comprises a ball suspended by a substantially inelastic upstanding line from an upper, generally horizontal or inclined elongate guideway and connected by the same or a second substantially inelastic upstanding line to a lower, generally horizontal or inclined elongate guideway. The lower elongate guideway may be at ground level and the height of the ball above ground level may be adjustable.

**French Abstract**

Cet appareil utilise pour s'adonner a des jeux de balles ou s'y entrainer, comporte une balle maintenue suspendue par un fil quasiment inelastique place en hauteur a un element de guidage allonge generalement horizontal ou incline et rattachee par ce fil ou par un second fil, egalement quasiment inelastique, a un element de guidage allonge generalement horizontal ou incline. Ce dernier peut se trouver au niveau du sol et la hauteur de la balle au-dessus du niveau du sol est adaptable.

Patent Applicant/Assignee:

**VAN ASSELT Jan Abram...**

Main International Patent Class: **A63B-069/38**

International Patent Class: **A63B-069/36**

Set	Items	Description
S1	0	AU=(VAN()ASSELT J? OR VAN()ASSELT, J? OR VAN()ASSELT J OR - VAN()ASSELT, J OR VAN()ASSELT J. OR VAN()ASSELT, J. OR VAN()A- SSELT JA OR VAN()ASSELT, JA OR VAN()ASSELT J.A. OR VAN()ASSEL- T, J.A. OR VAN()ASSELT JAN OR VAN()ASSELT, JAN)
S2	0	AU=(VANASSELT J? OR VANASSELT, J? OR VANASSELT J OR VANASS- ELT, J OR VANASSELT J. OR VANASSELT, J. OR VANASSELT JA OR VA- NASSELT, JA OR VANASSELT J.A. OR VANASSELT, J.A. OR VANASSELT JAN OR VANASSELT, JAN)
S3	0	(JAN OR ABRAHAM) (2N) (VANASSELT OR VAN()ASSELT)
S4	7	VAN()ASSELT
S5	0	S4 AND BALL?

? show files

File 94:JICST-EPlus 1985-2004/Jan W1  
(c)2004 Japan Science and Tech Corp(JST)

File 95:TEME-Technology & Management 1989-2004/Dec W3  
(c) 2004 FIZ TECHNIK

File 99:Wilson Appl. Sci & Tech Abs 1983-2003/Nov  
(c) 2003 The HW Wilson Co.

File 35:Dissertation Abs Online 1861-2003/Nov  
(c) 2003 ProQuest Info&Learning

File 111:TGG Natl.Newspaper Index(SM) 1979-2004/Jan 07  
(c) 2004 The Gale Group

File 583:Gale Group Globalbase(TM) 1986-2002/Dec 13  
(c) 2002 The Gale Group

File 6:NTIS 1964-2004/Jan W1  
(c) 2004 NTIS, Intl Cpyrght All Rights Res

File 8:Ei Compendex(R) 1970-2004/Dec W4  
(c) 2004 Elsevier Eng. Info. Inc.

File 34:SciSearch(R) Cited Ref Sci 1990-2004/Jan W1  
(c) 2004 Inst for Sci Info

File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec  
(c) 1998 Inst for Sci Info

File 65:Inside Conferences 1993-2004/Jan W1  
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File 473:FINANCIAL TIMES ABSTRACTS 1998-2001/APR 02  
(c) 2001 THE NEW YORK TIMES

File 474:New York Times Abs 1969-2004/Jan 08  
(c) 2004 The New York Times

File 475:Wall Street Journal Abs 1973-2004/Jan 08  
(c) 2004 The New York Times

File 481:DELPHEs Eur Bus 95-2004/Dec W3  
(c) 2004 ACFCI & Chambre CommInd Paris

File 48:SPORTDiscus 1962-2003/Dec  
(c) 2003 Sport Information Resource Centre

File 50:CAB Abstracts 1972-2004/Dec  
(c) 2004 CAB International

? pause

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Set	Items	Description
S1	0	AU=(VAN()ASSELT J? OR VAN()ASSELT, J? OR VAN()ASSELT J OR - VAN()ASSELT, J OR VAN()ASSELT J. OR VAN()ASSELT, J. OR VAN()A- SSELT JA OR VAN()ASSELT, JA OR VAN()ASSELT J.A. OR VAN()ASSEL- T, J.A. OR VAN()ASSELT JAN OR VAN()ASSELT, JAN)
S2	2	AU=(VANASSELT J? OR VANASSELT, J? OR VANASSELT J OR VANASS- ELT, J OR VANASSELT J. OR VANASSELT, J. OR VANASSELT JA OR VA- NASSELT, JA OR VANASSELT J.A. OR VANASSELT, J.A. OR VANASSELT JAN OR VANASSELT, JAN)
S3	3	(JAN OR ABRAHAM) (2N) (VANASSELT OR VAN()ASSELT)
S4	5	S2:S3
S5	4	RD (unique items)
? show files		
File	9:	Business & Industry(R) Jul/1994-2004/Jan 08 (c) 2004 Resp. DB Svcs.
File	16:	Gale Group PROMT(R) 1990-2004/Jan 09 (c) 2004 The Gale Group
File	47:	Gale Group Magazine DB(TM) 1959-2004/Jan 01 (c) 2004 The Gale group
File	80:	TGG Aerospace/Def.Mkts(R) 1986-2004/Jan 09 (c) 2004 The Gale Group
File	141:	Readers Guide 1983-2003/Nov (c) 2003 The HW Wilson Co
File	148:	Gale Group Trade & Industry DB 1976-2004/Jan 09 (c) 2004 The Gale Group
File	160:	Gale Group PROMT(R) 1972-1989 (c) 1999 The Gale Group
File	482:	Newsweek 2000-2004/Jan 06 (c) 2004 Newsweek, Inc.
File	621:	Gale Group New Prod.Annou.(R) 1985-2004/Jan 09 (c) 2004 The Gale Group
File	484:	Periodical Abs Plustext 1986-2004/Jan W1 (c) 2004 ProQuest
File	635:	Business Dateline(R) 1985-2004/Jan 08 (c) 2004 ProQuest Info&Learning
File	636:	Gale Group Newsletter DB(TM) 1987-2004/Jan 09 (c) 2004 The Gale Group
File	646:	Consumer Reports 1982-2004/Jan (c) 2004 Consumer Union
File	609:	Bridge World Markets 2000-2001/Oct 01 (c) 2001 Bridge
File	649:	Gale Group Newswire ASAP(TM) 2004/Jan 01 (c) 2004 The Gale Group
File	610:	Business Wire 1999-2004/Jan 09 (c) 2004 Business Wire.
File	613:	PR Newswire 1999-2004/Jan 09 (c) 2004 PR Newswire Association Inc
File	810:	Business Wire 1986-1999/Feb 28 (c) 1999 Business Wire
File	813:	PR Newswire 1987-1999/Apr 30 (c) 1999 PR Newswire Association Inc
File	20:	Dialog Global Reporter 1997-2004/Jan 09 (c) 2004 The Dialog Corp.
File	570:	Gale Group MARS(R) 1984-2004/Jan 09 (c) 2004 The Gale Group
File	476:	Financial Times Fulltext 1982-2004/Jan 09 (c) 2004 Financial Times Ltd
File	477:	Irish Times 1999-2004/Jan 08 (c) 2004 Irish Times
File	583:	Gale Group Globalbase(TM) 1986-2002/Dec 13 (c) 2002 The Gale Group

File 622:EIU Magazines 2000-2004/Jan 07  
    (c) 2004 EIU Magazines  
File 710:Times/Sun.Times(London) Jun 1988-2004/Jan 08  
    (c) 2004 Times Newspapers  
File 711:Independent(London) Sep 1988-2004/Jan 08  
    (c) 2004 Newspaper Publ. PLC  
File 756:Daily/Sunday Telegraph 2000-2004/Jan 09  
    (c) 2004 Telegraph Group  
File 757:Mirror Publications/Independent Newspapers 2000-2004/Jan 09  
    (c) 2004  
File 985:World News Connection (r) 1995-2004/Jan 08  
    2004 NTIS

Set	Items	Description
S1	240451	BALL? ? OR BIRDIE? ? OR BASEBALL? OR SHUTTLECOCK? OR SHUTT- LE()COCK? ?
S2	192798	BAT OR BATS OR RACKET? OR RACQUET? OR CLUB? OR STICK? OR C- RICKETBAT? OR HOCKEYSTICK? OR BASEBALLBAT OR BADMINTION OR TE- NNIS OR BASEBALL OR ROUNDERS OR CRICKET OR CROQUET?
S3	219513	PRACTIC? OR PRACTIS? OR TRAIN? OR EXERCIS? OR EXERCIZ? OR - SKILL(2N)IMPROV?
S4	199236	SWING? OR BATTING OR STROKE? ? OR STROKING
S5	493074	CABLE? OR CABLING OR TETHER? OR ANCHOR?
S6	1193542	TIE OR TIED OR TIES OR TYING OR ATTACH?
S7	2059106	CORD? OR LINE? OR ROPE? OR STRING? OR STRAP? OR LEASH?
S8	278050	GUIDEWAY? OR GUIDE() (WAY OR WAYS) OR TRACK? OR RAMP?
S9	441435	(SLIDE? ? OR SLIDING OR GLIDE? ? OR GLIDING OR MOVE? ? OR - MOVING OR MOVEMENT) (3N) (CLIP? OR RING? OR SLIDE? OR ROPE? OR - LOOP?)
S10	76347	IC=A63B?
S11	21763	SLACK? OR UNTAUT? OR NONTAUT? OR NOTTAUT? OR (UN OR NON) () - (TAUT OR TENSION? OR TIGHT?) OR UNTIGHT? OR NONTIGHT? OR NOTT- IGHT? OR UNTENSION? OR NONTENSION? OR NOTTENSION?
S12	11542	FLACCID? OR LIMP?? OR LAX OR LAXLY OR LAXILY OR INELASTIC? OR UNELASTIC? OR NONELASTIC? OR NOTELASTIC? OR (IN OR UN OR N- ON) ()ELASTIC?
S13	4048	S1 AND S2 AND S3:S4
S14	1532	S13 AND S5:S7
S15	17	S14 AND S11:S12
S16	15	S15 AND S10
S17	17	S15:S16
S18	17	IDPAT (sorted in duplicate/non-duplicate order)

? show files

File 347:JAPIO Oct 1976-2003/Sep(Updated 040105)

(c) 2004 JPO & JAPIO

File 350:Derwent WPIX 1963-2004/UD,UM &UP=200402

(c) 2004 Thomson Derwent

18/3,K/1 (Item 1 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2004 Thomson Derwent. All rts. reserv.

015140536 \*\*Image available\*\*  
WPI Acc No: 2003-201063/200319  
XRPX Acc No: N03-160264

Batting aid for baseball players, has wrist cuff and upper arm cuff  
connected by elastic strap that provides resisting force against  
further extension of leading arm

Patent Assignee: BURNS K C (BURN-I)

Inventor: BURNS K C

Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20030004018	A1	20030102	US 2001897227	A	20010702	200319 B
US 6514163	B2	20030204	US 2001897227	A	20010702	200331

Priority Applications (No Type Date): US 2001897227 A 20010702

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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US 20030004018	A1		5	A63B-069/00	
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US 6514163	B2			A63B-069/00	
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Batting aid for baseball players, has wrist cuff and upper arm cuff  
connected by elastic strap that provides resisting force against  
further extension of leading arm

Abstract (Basic):

... The **batting** aid has a wrist cuff (140) and an upper arm cuff  
(110) connected by an elastic **strap** (100). When the leading arm is  
flexed and the elastic **strap** is **slack** and upon extension of the  
leading arm, the elastic **strap** becomes taught and provides a  
resisting force against further extension of the leading arm.

... The upper arm cuff is **attached** to the upper portion of the  
leading arm of a person preparing to **swing** a **bat**. The wrist cuff is  
**attached** to the wrist portion of the leading arm, and supported  
against movement away from the hand of the person by a thumb **strap**  
(160). The thumb **strap** has a first **attachment** point to the wrist  
cuff on one side of the wrist and extending through a space between the  
thumb and the index finger of the batter's hand. The second **attachment**  
point of the thumb **strap** to the wrist cuff is set at a position  
opposite the first **attachment** point...

...For **baseball** players...

...Strengthens and positions leading arm of batter while **swinging** at a  
**baseball**. Improves the technique of a batter's **swing**. Provides  
greater speed and power to a **bat** just before the **bat** strikes a  
**baseball**. **Exercises** and strengthens the triceps muscle of the  
batter's leading arm...

...The figure shows the **batting** aid **attached** to the leading arm and  
wrist of a batter...

...Elastic **strap** (100...

...Thumb **strap** (160...

Title Terms: **BATTING** ;

International Patent Class (Main): A63B-069/00



18/3,K/2 (Item 2 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2004 Thomson Derwent. All rts. reserv.

014708151  
WPI Acc No: 2002-528855/200256  
XRAM Acc No: C02-149695

**Surface material for non-turf surfaces and sand bunker liners comprises specific amounts of clay, decomposed granite and wax**

Patent Assignee: HUBBS J W (HUBB-I); STABILIZER SOLUTIONS INC (STAB-N)

Inventor: HUBBS J W

Number of Countries: 022 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200253678	A2	20020711	WO 2001US49688	A	20011228	200256 B
US 20020121226	A1	20020905	US 2000751025	A	20001229	200260

Priority Applications (No Type Date): US 2000751025 A 20001229

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200253678 A2 E 16 C09K-017/00

Designated States (National): AU JP

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LU

MC NL PT SE TR

US 20020121226 A1 C08L-091/06

**Surface material for non-turf surfaces and sand bunker liners comprises specific amounts of clay, decomposed granite and wax**

Abstract (Basic):

... For non-turf surfaces such as **baseball** infields, soccer fields, hand **ball** courts, **tennis** courts, horse **training** , **exercising** , jumping and racing surfaces, parking lots, highway embankments, and sand bunker **liners** .

Technology Focus:

... surface material is made by mixing clay with emulsify wax which is a microcrystalline based **slack** wax; and includes gravel, organic binder, wax, clay, silt or decomposed granite.

18/3,K/3 (Item 3 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2004 Thomson Derwent. All rts. reserv.

014508082 \*\*Image available\*\*  
WPI Acc No: 2002-328785/200236  
XRAM Acc No: C02-094949  
XRPX Acc No: N02-258033

**Composite sheet useful as component in sanitary articles such as disposable diapers, comprises fibrous sheet bonded and welded to thermoplastic resin film having numerous bulgy zones spaced apart by flat zones**

Patent Assignee: UNI-CHARM KK (UNIC-N); TANIGUCHI H (TANI-I)

Inventor: TANIGUCHI H

Number of Countries: 035 Number of Patents: 010

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20020025410	A1	20020228	US 2001941096	A	20010828	200236 B
AU 200163577	A	20020307	AU 200163577	A	20010821	200236

CA 2355587	A1	20020228	CA 2355587	A	20010823	200236
EP 1184501	A2	20020306	EP 2001307102	A	20010821	200236
JP 2002144461	A	20020521	JP 2000298973	A	20000929	200237
CN 1340336	A	20020320	CN 2001125861	A	20010828	200246
SG 89415	A1	20020618	SG 20015077	A	20010821	200253
KR 2002018021	A	20020307	KR 200151724	A	20010827	200261
BR 200105024	A	20020917	BR 20015024	A	20010827	200264
TW 483751	A	20020421	TW 2001120419	A	20010820	200314

Priority Applications (No Type Date): JP 2000298973 A 20000929; JP 2000257640 A 20000828

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20020025410	A1			9 B32B-003/30	
AU 200163577	A			B32B-003/30	
CA 2355587	A1 E			B32B-005/26	
EP 1184501	A2 E			D04H-013/00	

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR

JP 2002144461	A			6 B32B-003/26	
CN 1340336	A			A61F-013/15	
SG 89415	A1			B32B-027/12	
KR 2002018021	A			A61F-013/51	
BR 200105024	A			A61F-013/00	
TW 483751	A			A61F-013/00	

Abstract (Basic):

... elastic yarn, is utilized as stock material for comfort stretch clothes such as working clothes, **slacks**, jackets or suits, **training** wears or **baseball** uniform, or power stretch clothes such as leotard or spats...

...The figure shows the sectional view of a composite sheet taken along a line A-A...

18/3,K/4 (Item 4 from file: 350)  
 DIALOG(R)File 350:Derwent WPIX  
 (c) 2004 Thomson Derwent. All rts. reserv.

014205659 \*\*Image available\*\*  
 WPI Acc No: 2002-026356/200203  
 XRPX Acc No: N02-020293

**Rehabilitater and trainer has base accommodating handle within opening having attached weight with flexible strap wrapped around**  
 Patent Assignee: PATTERSON P (PATT-I); POLIQUIN C (POLI-I); PYNE K (PYNE-I); PYNE K E (PYNE-I)  
 Inventor: PATTERSON P; POLIQUIN C; PYNE K; PYNE K E  
 Number of Countries: 095 Number of Patents: 004  
 Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200185263	A1	20011115	WO 2001US14958	A	20010507	200203 B
AU 200161310	A	20011120	AU 200161310	A	20010507	200219
EP 1294451	A1	20030326	EP 2001935197	A	20010507	200323
			WO 2001US14958	A	20010507	
US 6569066	B1	20030527	US 2000585462	A	20000531	200337

Priority Applications (No Type Date): US 2000585462 A 20000531; US 2000202522 P 20000505

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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WO 200185263 A1 E 153 A63B-021/075

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA  
CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP  
KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT  
RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR  
IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

AU 200161310 A A63B-021/075 Based on patent WO 200185263

EP 1294451 A1 E A63B-021/075 Based on patent WO 200185263

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT  
LI LT LU LV MC MK NL PT RO SE SI TR

US 6569066 B1 A63B-021/075

**Rehabilitater and trainer has base accommodating handle within opening  
having attached weight with flexible strap wrapped around**

Abstract (Basic):

... The rehabilitater and **trainer** comprises a base having an  
opening for inserting the **exercisers** hand onto a circular/annular  
handle (122) within and **attaching** a weight (138). An elastic/  
**inelastic** flexible flat **strap** (114) is provided having internal  
resistance **attachable** at differing points (144) and adapted to wrap  
around the exterior surface of the base.

... An INDEPENDENT CLAIM is also included for a method of  
**exercising** .

...

...In **training** for competitive sports, which require coordinated movement  
of and function at multiple muscle and joints. E.g. **Baseball** ..

...

...Permits multiple movement are arm during live-hand **exercises** .

...

...The drawing shows the upper extremity of the rehabilitater and **trainer**

...

...Flat **strap** (114

Title Terms: **TRAINING** ;

International Patent Class (Main): **A63B-021/075**

**18/3,K/5** (Item 5 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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010471605 \*\*Image available\*\*

WPI Acc No: 1995-372977/199548

XRPX Acc No: N95-275024

**Multifunctional sports utility accessory - has flexible panel having  
attachable different elements to perform different functions with  
converting elements having handles attached and hooks**

Patent Assignee: TOMER R F (TOME-I)

Inventor: TOMER R F

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 5460363	A	19951024	US 94218900	A	19940328	199548 B

Priority Applications (No Type Date): US 94218900 A 19940328

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes  
US 5460363 A 6 A63B-069/40

... has flexible panel having attachable different elements to perform different functions with converting elements having handles attached and hooks

...Abstract (Basic): The accessory includes a flexible panel made of inelastic resilient sheet material and different elements attached to the flexible panel for converting the flexible panel to perform the multiple diverse functions of an equipment carrying bag, a sports practice aid, and an equipment holder. The different converting elements are provided at various locations on...

...The different converting elements include a pair of handles attached at opposite edges of the flexible panel to use the accessory as the carrying bag...

...periphery of the flexible panel to use the accessory as the equipment holder. Hooks are attached adjacent to the periphery of the flexible panel to use the flexible panel in folded condition as an equipment holding pocket or in unfolded flat condition as a practice aid. A symbol is applied or imprinted on one or both of the opposite faces...

...flexible panel to provide the accessory as target when the accessory is used as a practice aid...

...USE/ADVANTAGE - Simple and effective way to facilitate carrying all the baseball equipment to the dugout, warming up and practising the pitchers and holding the baseball equipment out of the way during the game...

...Title Terms: ATTACH ;

International Patent Class (Main): A63B-069/40

18/3,K/6 (Item 6 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

010064351 \*\*Image available\*\*

WPI Acc No: 1994-332062/199441

Related WPI Acc No: 1995-357752

XRAM Acc No: C94-151015

XRPX Acc No: N94-260713

Appts. for practicing a golf swing - has rectangle of simulated grass on inelastic nylon backing spring mounted under tension on frame

Patent Assignee: MACDONALD D K (MACD-I)

Inventor: MACDONALD D K

Number of Countries: 002 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 5356147	A	19941018	US 92931598	A	19920818	199441 B
			US 936826	A	19930121	
AU 9470249	A	19960229	AU 9470249	A	19940815	199616 N
AU 673757	B	19961121	AU 9470249	A	19940815	199703 N

Priority Applications (No Type Date): US 936826 A 19930121; US 92931598 A 19920818; AU 9470249 A 19940815

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

US 5356147 A 13 A63B-069/36 CIP of application US 92931598

AU 673757      B            A63B-069/36    Previous Publ. patent AU 9470249  
AU 9470249    A            A63B-069/36

**Appts. for practicing a golf swing - ...**

**...has rectangle of simulated grass on inelastic nylon backing spring  
mounted under tension on frame**

...Abstract (Basic): Appts. has a rectangular sheet of simulated grass with  
its own backing **attached** to an **inelastic** rectangular support sheet.  
Each end of the support sheet is **attached** to a rectangular frame so  
it is suspended under tension above the bottom of the frame and can be  
depressed when struck by a golf **club** .

...

...Pref. the **inelastic** sheet is of nylon and is bonded or sewn to the  
simulated grass. The nylon sheet may be **attached** by springs to the  
frame...

...USE - Appts. for **practicing a golf swing** .

...

...ADVANTAGE - Permits **swings** with an iron or wood which hit ''through''  
the **ball** and would produce a divot in natural turf

...Title Terms: **SWING** ;

International Patent Class (Main): **A63B-069/36**

**18/3,K/7      (Item 7 from file: 350)**

DIALOG(R)File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

010028475      \*\*Image available\*\*

WPI Acc No: 1994-296188/199437

XRPX Acc No: N94-233021

**Device for throwing and catching ball - includes sleeve or handle which  
is connected by cord to ball , this cord threaded through passage in  
handle, and having stop on end of cord stopping against end of handle**

Patent Assignee: MASIP R (MASI-I)

Inventor: MASIP R

Number of Countries: 001    Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
FR 2702385	A1	19940916	FR 932633	A	19930308	199437 B

Priority Applications (No Type Date): FR 932633 A 19930308

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
FR 2702385	A1		9	A63B-065/12	

**Device for throwing and catching ball - ...**

**...includes sleeve or handle which is connected by cord to ball , this  
cord threaded through passage in handle, and having stop on end of cord  
stopping against end of handle**

...Abstract (Basic): The **ball** (4) is joined to a handle (1) by a **cord**  
(3) which is threaded through a passage (2) through the handle. The  
passage is longitudinally through the handle. The end of the **cord** has  
a stop (5') fixed to it which stops against the end of the handle...

...A connector can be slid along the **cord** to adjust the length of the  
throw. The **cord** can be rolled on a drum with a spring, in front of

the hand grip. The cord can be elastic or non - elastic .

...

...USE - For throwing and catching ball and mainly for tennis training

...Title Terms: BALL ;

International Patent Class (Main): A63B-065/12

International Patent Class (Additional): A63B-067/12

18/3,K/8 (Item 8 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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009586865 \*\*Image available\*\*

WPI Acc No: 1993-280411/199335

XPX Acc No: N93-215462

Baseball batting practice device - has practice ball swung in orbit at end of tether having shock-absorbing and non - elastic link and gripping assembly

Patent Assignee: CHRISTENSEN R B (CHRI-I)

Inventor: CHRISTENSEN R B

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 5238241	A	19930824	US 92905352	A	19920629	199335 B

Priority Applications (No Type Date): US 92905352 A 19920629

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 5238241	A	6	A63B-069/40	

Baseball batting practice device...

...has practice ball swung in orbit at end of tether having shock-absorbing and non - elastic link and gripping assembly

...Abstract (Basic): A ball suitable for batting is provided with an elongated tether assembly comprising a non - elastic flexible cord having ends proximate and distal to an operator of the device. A member secures a ball to the distal end and handle is secured to the proximate end and graspable by...

...The tether assembly further comprises innermost and outermost cord segments, joined by an elastic shock-absorbing and an elongated non - elastic cord segment. The shock-absorber is an endless band of elastic material and the non - elastic cord segment has a length greater than one half the length of the endless band. The elastic band and the non - elastic cord segment are separately attached to one end of the innermost and outermost cord segments...

...ADVANTAGE - Provides a safe tethered ball batting practice device with improved shock absorption, and reduced strain to the hand and arm of the...

Title Terms: BASEBALL ;

International Patent Class (Main): A63B-069/40

18/3,K/9 (Item 9 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

009038803 \*\*Image available\*\*

WPI Acc No: 1992-166164/199220

XRFX Acc No: N92-124259

**Portable golf swing practice device - includes ground attachment formed of wire having two vertical uprights with junction at one upright having cord**

Patent Assignee: SHELTON W C (SHEL-I)

Inventor: SHELTON R E; SHELTON W C

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 5108107	A	19920428	US 90620013	A	19901130	199220 B

Priority Applications (No Type Date): US 90620013 A 19901130

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 5108107	A	4		

**Portable golf swing practice device...**

**...includes ground attachment formed of wire having two vertical uprights with junction at one upright having cord**

**...Abstract (Basic):** The portable, directional, fold swing practice device consists of a ground attachment, formed out of one continuous length of wire, that has two vertical uprights, with one horizontal section connecting them, and an attachment loop at the junction of one of the vertical uprights and one end of the horizontal section to form a front end, which has attached to it an elastic section of cord of specific length. The cord is attached to a non - elastic section of cord of specific length, which is attached to a screw eyelet...

**...The eyelet is screwed into a standard one piece golf ball, which would be teed up by the golfer for a practice session, during which the golfer strikes the golf ball with enough force by the golf club, that would outstretch the non - elastic and elastic cords to their full lengths, at which point the forward force would then engage the elastic length of cord and stretch it to whatever the forward momentum would extend it, then return the ball to a place behind the golfer, thereby giving the golfer a gauge to measure the clubhead speed or full swing one has generated...**

**...ADVANTAGE - Is small and convenient to use at any time practice is desired...**

**...Title Terms: SWING ;**

**International Patent Class (Additional): A63B-069/36**

**18/3,K/10 (Item 10 from file: 350)**

DIALOG(R)File 350:Derwent WPIX

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008549110 \*\*Image available\*\*

WPI Acc No: 1991-053161/199108

XRFX Acc No: N91-041130

**Computer game machine for simulating practice of golf - has switch in cord which feeds position data of control stick into computer when cord is taut to calculate trajectory and distance of drive**

Patent Assignee: LEW G (LEWG-I)

Inventor: LEW G

Number of Countries: 002 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
GB 2234910	A	19910220	GB 8918715	A	19890816	199108 B
US 5035432	A	19910730	US 90564889	A	19900809	199133

Priority Applications (No Type Date): GB 8918715 A 19890816

**Computer game machine for simulating practice of golf...**

...has switch in cord which feeds position data of control stick into computer when cord is taut to calculate trajectory and distance of drive

...Abstract (Basic): ramp covered with a carpet (3) to simulate the green of a golf course. A ball (8) is tethered by a cord (10) to the control stick (6) of a joystick controller (4). A 'pull-to-close' switch (12) is incorporated in the cord so that data on the position of the control stick when the cord is taut can be fed to a computer in order to calculate the trajectory and...

...Putting practice can be obtained by use of a free ball which is putted into a hole (17) formed in the base and provided with a microswitch (18) which closes when the ball enters the hole...

...USE/ADVANTAGE - E.g. as arcade game or for training purposes. Provides golfer with information about trajectory of golf ball he has struck. (13pp Dwg.No.1/4)

...Abstract (Equivalent): The golf game comprises a ball tethered to a pivotable control of a controller, a first switch being incorporated in the tether. When the tether is taut, as at a point during the drive of the ball, the first switch is triggered to cause data on the position of the control to...

...The pivotable control is pref. a control stick of a joystick controller. The ball is tethered by means of a cord pref. non - elastic. The cord length is such that the normal trajectory of the ball is not unnecessarily restricted during the drive...

...USE - Golf simulation or practice. (7pp)

...Title Terms: PRACTICE ;

International Patent Class (Additional): A63B-069/36 ...

18/3,K/11 (Item 11 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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008105459

WPI Acc No: 1989-370570/198950

XRPX Acc No: N89-282059.

**Golf practice device with striking force indicator - has practice ball connected by flexible cord to cylinder containing damped piston whose displacement is proportional to striking force**

Patent Assignee: RUSSELL N W (RUSS-I)

Inventor: RUSSELL N W; RUSSEL N W

Number of Countries: 030 Number of Patents: 006

Patent Family:



Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 8911315	A	19891130	WO 89AU228	A	19890522	198950 B
AU 8937443	A	19891212				199010
GB 2236256	A	19910403	GB 8924902	A	19890522	199114
US 5056790	A	19911015	US 89613885	A	19891224	199144
JP 4501215	W	19920305	JP 90506082	A	19900522	199216
GB 2236256	B	19920722	WO 89AU228	A	19890522	199230
			GB 9024902	A	19890522	

Priority Applications (No Type Date): AU 888362 A 19880520

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 8911315 A E 13

Designated States (National): AT AU BB BG BR CH DE DK FI GB HU JP KP KR  
LK LU MC MG MW NL NO RO SD SE SU US

Designated States (Regional): AT BE CH DE FR GB IT LU NL OA SE

JP 4501215 W 6 Based on patent WO 8911315

GB 2236256 B A63B-069/36 Based on patent WO 8911315

**Golf practice device with striking force indicator...**

**...has practice ball connected by flexible0 cord to cylinder containing damped piston whose displacement is proportional to striking force**

...Abstract (Basic): The golf **practice** device consists of a base (10) supporting a rotatable cylinder-shaped **ball** control frame (11) containing a weighted sliding piston (17) damped by water. The piston has...

...allowing the water to pass from one part of the cylinder to the other. The **practice ball** (16) is connected to one end of a **non - elastic cord** (17) which passes via a guide sleeve (19) through a lower pulley (20) and upper...

...A safety **line** (35) restricts the distance the **ball** may fly in the event of the **cord** snapping. When the **ball** is struck, the horizontal portion of the **cord** (18) forces the cylinder to rotate and the piston moves upwards from its lower position...

...has been positioned manually at the bottom of the scale at the beginning of each **stroke** .

...Abstract (Equivalent): A golf **practise** device comprising a base, a **ball** -control frame extending upwardly from the base and being rotatable about a vertical axis thereof, a damping device mounted reciprocally on said frame, a **practise ball** and a flexible, substantially **inelastic cord** having one end connected to said **ball** and the other end operatively associated with said damping device, said **ball** being struck in use and moving in a substantially circular path thereby to rotate said **ball** control frame, the striking force applied to said **ball** tending to move it tangentially to said path thereby to withdraw the **cord** lengthwise of itself from said frame to actuate said damping device, the more effect the striking force, the greater the lengthwise withdrawal of the **cord** , and the damping device having a return action operative in use to return said **cord** to its initial length as the **ball** control frame ceases rotation. (Dwg.1)

...Abstract (Equivalent): A golf **ball** may be placed manually at an initial striking station adjacent to but spaced from the base and **ball** -control frame. The **cord** has a first portion arranged to extend

tautly from the **ball** to the **ball** -control frame at right angles to the **club** head path. Striking of the **ball** causes rotation of the **ball** -control frame in unison with rotation of the first **cord** portion  
...

...Additionally the force imparted to the **ball** tends to move it tangentially to its circular path acts to withdraw the **cord** lengthwise of itself and from the **ball** -controlled frame to actuate the reciprocally mounted damping device in its first-direction damping action, the more effective the striking force the greater the lengthwise withdrawal of the **cord** . The reciprocally mounted damping device has a second-direction return action effective to return the **cord** to its initial lengthwise disposition as the **ball** -control frame ceases rotation. The **ball** may be again set manually at the striking station...

...USE - Golf-driving **practice** regardless of weather or space limitations. (6pp)e

...Title Terms: **PRACTICE** ;

International Patent Class (Main): **A63B-069/36**

**18/3,K/12** (Item 12 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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004627348

WPI Acc No: 1986-130691/198620

XRPX Acc No: N86-096515

Tennis ball retrieving appts. - has flexible damping screen with trough to catch balls and auger to convey them to receptacle

Patent Assignee: CAVANAGH P A (CAVA-I)

Inventor: CAVANAGH P A

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 4575081	A	19860311	US 84653195	A	19840924	198620 B

Priority Applications (No Type Date): US 84653195 A 19840924

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 4575081	A		4		

Tennis ball retrieving appts...

...has flexible damping screen with trough to catch balls and auger to convey them to receptacle

...Abstract (Basic): The **tennis** ball recovery system for a **tennis** playing court having a back fence comprises an **inelastic** flexible damping screen mounted so that a portion in spaced relation to and parallel to the back fence of a **tennis** court. A horizontal trough has its length parallel with and positioned below the bottom edge...

...The trough has an opening with a **ball** receptacle and a conduit at the opening directed away from the back fence to the...

...positive pressure source directs air transversely across the trough and through the conduit to feed **balls** into the conduit; A **cable** having a **cord** wound helically about it forming a helical feed screw is

rotated so that **balls** are moved toward the opening...

...ADVANTAGE - An existing court can be used for **practice** . (4pp  
Dwg.No.1/6)

Title Terms: **TENNIS** ;

International Patent Class (Additional): **A63B-061/00**

**18/3,K/13** (Item 13 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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003251048

WPI Acc No: 1982-A7333E/198203

**Tennis practice appts. for indoor use - has ball suspended on  
elastic cord between pair of upright posts and slack net held  
vertically in front of it**

Patent Assignee: TOMINAGA K (TOMI-I); TOMINAGA Y (TOMI-I)

Inventor: TOMINAGA Y

Number of Countries: 007 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 8200008	A	19820107				198203 B
JP 57501311	W	19820729				198236
US 4521016	A	19850604	US 82355575	A	19820223	198525

Priority Applications (No Type Date): AU 804224 A 19800626

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 8200008 A E 16

Designated States (National): AU DE GB JP KP SE US

**Tennis practice appts. for indoor use...**

**...has ball suspended on elastic cord between pair of upright posts and  
slack net held vertically in front of it**

...Abstract (Basic): The **tennis practice** device has a pair of vertical support parts (12) between which extends an elastic **cord** (28) A **ball** is suspended by a stiff nylon **cord** (42) which is connected to the centre of the elastic **cord** . A net (15) is supported vertically in front of the **ball** by vertical parts (46) and a pair of horizontal posts (47,48). The net is held **slackly** so that some of the kinetic energy of the **ball** is dissipated on impact...

Title Terms: **TENNIS** ;

International Patent Class (Additional): **A63B-061/00** ...

... **A63B-069/38**

**18/3,K/14** (Item 14 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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001713867

WPI Acc No: 1977-F0358Y/197724

**Tennis tuner practice appts. - has captive ball secured between  
lengths of elastic and non - elastic material secured to uprights**

Patent Assignee: IDEX CORP (IDEX-N)

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 4027880	A	19770607				197724 B

Priority Applications (No Type Date): US 76647909 A 19760109

Tennis tuner practice appts...

...has captive ball secured between lengths of elastic and non - elastic material secured to uprights

...Abstract (Basic): The captive ball apparatus is for practice purposes. It comprises a relatively inelastic captive ball of high strength and hardness and medium or average cut-growth rate cords attached to the ball. Elastic, lower strength, high cut-growth rate cords are attached to the ends of the inelastic, high strength cords.

...

...The other ends are secured to loops which pass over poles spaced away from the ball. These are driven into the ground forming a rigid support for the ball.

Title Terms: TENNIS ;

International Patent Class (Additional): A63B-069/38

18/3,K/15 (Item 15 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

001550665

WPI Acc No: 1976-M3614X/197652

Tennis serve training device - comprising flexible non elastic tether attached to weighted bag

Patent Assignee: MALHAS F S (MALH-I)

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 3997159	A	19761213				197652 B

Priority Applications (No Type Date): US 72222549 A 19720201; US 7020332 A 19700317

Tennis lserve training device...

...comprising flexible non elastic tether attached to weighted bag

...Abstract (Basic): The device for use in learning, practicing, and perfecting a tennis serve comprises a flexible, non - elastic tether and a weighted end portion. The tether is grasped at one end and swung forward using the motion associated with the exaggerated throwing of a ball. The weighted end of the device forces the smooth, continuous follow-through motion required in a tennis serve. The length of the tether and end portion is the length of, or substantially the length of, a tennis racket. The tennis player will grasp the tether in the hand used to grasp his tennis racket and, standing in a tennis stance, will 'serve' with the device.

Title Terms: TENNIS ;

International Patent Class (Additional): A63B-069/38

18/3,K/16 (Item 16 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2004 Thomson Derwent. All rts. reserv.

001277064

WPI Acc No: 1975-G0973W/197523

Baseball pitching machine with swinging arm - line carrying the  
ball retracts automatically to remove slack during flight

Patent Assignee: PARR L R (PARR-I)

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 3885790	A	19750527				197523 B

Priority Applications (No Type Date): US 73371153 A 19730618

Baseball pitching machine with swinging arm...

... line carrying the ball retracts automatically to remove slack  
during flight

...Abstract (Basic): previously invented centrifugal pitching machines,  
this invention incorporates a retracting mechanism which automatically  
shortens the line so that the tethered baseball can make a smooth  
return to flight. Without it the ball tends to bounce and be erratic  
until the machine gets up to speed and the ball accepts a uniform  
flight pattern. With this machine the ball is immediately retracted,  
and as the horizontal arm recovers from the ball being hit, the ball  
assumes a uniform pattern. The line then extends itself as the  
centrifugal force of the baseball causes tension on the line and  
the retracting mechanism. This enables a very quick recovery and a  
shorter delay time permitting the batter to have more exercise with  
the machine.

Title Terms: BASEBALL ;

International Patent Class (Additional): A63B-069/40

18/3,K/17 (Item 17 from file: 347)  
DIALOG(R)File 347:JAPIO  
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06901623 \*\*Image available\*\*  
GOLF TRAINING IMPLEMENT

PUB. NO.: 2001-129143 [JP 2001129143 A]  
PUBLISHED: May 15, 2001 (20010515)  
INVENTOR(s): SHIMAMURA SUSUMU  
APPLICANT(s): SHIMAMURA SUSUMU  
APPL. NO.: 2000-270826 [JP 2000270826]  
FILED: August 03, 2000 (20000803)  
PRIORITY: 11-288572 [JP 99288572], JP (Japan), August 23, 1999  
(19990823)

GOLF TRAINING IMPLEMENT

INTL CLASS: A63B-069/36

#### ABSTRACT

PROBLEM TO BE SOLVED: To provide a golf training implement which has a  
length of a cord to enable a golfer to check the flying orbit of a hit

ball by use of golf clubs (12) of various shaft numbers and a cord take-up function to facilitate the resetting of the hit and returned ball and does not kink the cord of the returned ball .

SOLUTION: One end of the cloth coated rubber cord (3) having a length of about 10 meters is mounted at a mat (1) and another one end is mounted at a polyurethane sponge ball (5). This polyurethane sponge ball (5) has a slightly large through-hole to be passed with the cord in its central part and the hole passing cord (10) of a length to the extent of slackening in this hole and is connected to a ring form. Further, a ring connecting cord (11) is connected to this cord and an unkinking joint (4) is attached at a point of about 3 meters therefrom. The mat (1) is provided with cord take-up grooves (8) at two points such that the hit and returned ball may be stopped near the feet and the ball may be easily reset by regulating the take-up of the cloth covered rubber cord (3).

Set	Items	Description
S1	99237	BALL? ? OR BIRDIE? ? OR BASEBALL? OR SHUTTLECOCK? OR SHUTTLE()COCK? ?
S2	127874	BAT OR BATS OR RACKET? OR RACQUET? OR CLUB? OR STICK? OR C-RICKETBAT? OR HOCKEYSTICK? OR BASEBALLBAT OR BADMINTION OR TENNIS OR BASEBALL OR ROUNDERS OR CRICKET OR CROQUET?
S3	573735	PRACTIC? OR PRACTIS? OR TRAIN? OR EXERCIS? OR EXERCIZ? OR -SKILL(2N)IMPROV?
S4	103615	SWING? OR BATTING OR STROKE? ? OR STROKING
S5	209000	CABLE? OR CABLING OR TETHER? OR ANCHOR?
S6	552151	TIE OR TIED OR TIES OR TYING OR ATTACH?
S7	904156	CORD? OR LINE? OR ROPE? OR STRING? OR STRAP? OR LEASH?
S8	179528	GUIDEWAY? OR GUIDE() (WAY OR WAYS) OR TRACK? OR RAMP?
S9	160412	(SLIDE? ? OR SLIDING OR GLIDE? ? OR GLIDING OR MOVE? ? OR -MOVING OR MOVEMENT) (3N) (CLIP? OR RING? OR SLIDE? OR ROPE? OR -LOOP?)
S10	9900	IC=A63B?
S11	15364	SLACK? OR UNTAUT? OR NONTAUT? OR NOTTAUT? OR (UN OR NON) ()-(TAUT OR TENSION? OR TIGHT?) OR UNTIGHT? OR NONTIGHT? OR NOTTIGHT? OR UNTENSION? OR NONTENSION? OR NOTTENSION?
S12	23239	FLACCID? OR LIMP?? OR LAX OR LAXLY OR LAXILY OR INELASTIC? OR UNELASTIC? OR NONELASTIC? OR NOTELASTIC? OR (IN OR UN OR NON) ()ELASTIC?
S13	9424	S1 AND S2 AND S3:S4
S14	8467	S13 AND S5:S7
S15	95	S14 AND S5:S7(5N)S11:S12
S16	41	S15 AND S10
S17	64	S15 AND S8:S9
S18	95	S15:S17
S19	80	S18 AND S5:S7(3N)S11:S12
S20	80	IDPAT (sorted in duplicate/non-duplicate order)

? show files

File 348:EUROPEAN PATENTS 1978-2003/Dec W02

(c) 2003 European Patent Office

File 349:PCT FULLTEXT 1979-2002/UB=20031225,UT=20031218

(c) 2003 WIPO/Univentio

20/5/3 (Item 3 from file: 348)

DIALOG(R) File 348:EUROPEAN PATENTS

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01071041

BALL GAME APPARATUS

BALLSPIELGERAT

APPAREIL POUR JEUX DE BALLES

PATENT ASSIGNEE:

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LEGAL REPRESENTATIVE:

Fry, Alan Valentine et al (47775), FRY HEATH & SPENCE The Old College 53  
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PATENT (CC, No, Kind, Date): EP 1044042 A1 001018 (Basic)

EP 1044042 B1 020327

WO 9934884 990715

APPLICATION (CC, No, Date): EP 99900061 990104; WO 99GB1 990104

PRIORITY (CC, No, Date): GB 9800015 980103

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;  
LU; MC; NL; PT; SE

INTERNATIONAL PATENT CLASS: A63B-069/38 ; A63B-069/36

CITED PATENTS (EP B): DE 8804865 U; US 3086775 A; US 3114549 A; US 3630521  
A; US 4138107 A

CITED PATENTS (WO A): US 4138107 A ; US 3630521 A

NOTE:

No A-document published by EPO

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 001018 A1 Published application with search report

Application: 990915 A1 International application. (Art. 158(1))

Lapse: 030507 B1 Date of lapse of European Patent in a  
contracting state (Country, date): AT  
20020327, CH 20020327, LI 20020327, GR  
20020327,

Oppn None: 030319 B1 No opposition filed: 20021230

Grant: 020327 B1 Granted patent

Examination: 001018 A1 Date of request for examination: 20000721

Examination: 010110 A1 Date of dispatch of the first examination  
report: 20001127

Lapse: 030226 B1 Date of lapse of European Patent in a  
contracting state (Country, date): AT  
20020327,

Lapse: 030416 B1 Date of lapse of European Patent in a  
contracting state (Country, date): AT  
20020327, CH 20020327, LI 20020327,

Application: 990915 A1 International application entering European  
phase

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	200213	420
CLAIMS B	(German)	200213	448
CLAIMS B	(French)	200213	530
SPEC B	(English)	200213	1740
Total word count - document A			0
Total word count - document B			3138
Total word count - documents A + B			3138



20/5/4 (Item 4 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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00503532 \*\*Image available\*\*

BALL GAME APPARATUS  
APPAREIL POUR JEUX DE BALLE

Patent Applicant/Assignee:

VAN ASSELT Jan Abram,

Inventor(s):

VAN ASSELT Jan Abram,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9934884 A1 19990715

Application: WO 99GB1 19990104 (PCT/WO GB9900001)

Priority Application: GB 9815 19980103

Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES  
FI GB GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD  
MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US  
UZ VN YU ZW GH GM KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE  
CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN  
GW ML MR NE SN TD TG

Main International Patent Class: A63B-069/38

International Patent Class: A63B-069/36

Publication Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 2801

English Abstract

Apparatus for use in playing and practising ball games, comprises a ball suspended by a substantially inelastic upstanding line from an upper, generally horizontal or inclined elongate guideway and connected by the same or a second substantially inelastic upstanding line to a lower, generally horizontal or inclined elongate guideway. The lower elongate guideway may be at ground level and the height of the ball above ground level may be adjustable.

French Abstract

Cet appareil utilise pour s'adonner a des jeux de balles ou s'y entrainer, comporte une balle maintenue suspendue par un fil quasiment inelastique place en hauteur a un element de guidage allonge generalement horizontal ou incline et rattachee par ce fil ou par un second fil, egalement quasiment inelastique, a un element de guidage allonge generalement horizontal ou incline. Ce dernier peut se trouver au niveau du sol et la hauteur de la balle au-dessus du niveau du sol est adaptable.

20/5/32 (Item 32 from file: 349)  
DIALOG(R) File 349:PCT FULLTEXT  
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00777264 \*\*Image available\*\*

**BALL HITTING PRACTICE APPARATUS**  
**DISPOSITIF D'ENTRAINEMENT DE FRAPPE DE BALLE**

Patent Applicant/Assignee:

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US (Residence), US (Nationality)

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Patent and Priority Information (Country, Number, Date):

Patent: WO 200110515 A1 20010215 (WO 0110515)

Application: WO 2000US20503 20000727 (PCT/WO US0020503)

Priority Application: US 99147747 19990806

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ

DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ

LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG

SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: **A63B-069/00**

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 6937

English Abstract

A **ball** hitting **practice** apparatus for use by a hitter is provided.  
The **ball** hitting **practice** apparatus includes a substantially rigid member having a first end and a second end, a hinge capable of suspension from a frame and **attached** near the first end of the rigid member such that the rigid member rotates about a substantially horizontal axis, and a **ball** mounting assembly suspended from the second end of the rigid member. Methods for using and making the **ball** hitting **practice** are also provided.

French Abstract

L'invention porte sur un dispositif d'entrainement de frappe de **balle** destine a un frappeur. Ce dispositif comprend un element pratiquement rigide dote d'une premiere et d'une seconde extremite, une charniere permettant une suspension a partir d'un cadre et fixee pres de la premiere extremite de l'element rigide de sorte que celui-ci tourne autour d'un axe sensiblement horizontal, et un ensemble de fixation de **balle** suspendu a la seconde extremite de l'element rigide. L'invention porte egalement sur des procedes de fabrication et d'utilisation d'un dispositif d'entrainement de frappe de **balle** .

Legal Status (Type, Date, Text)

Publication	20010215	A1 With international search report.
Publication	20010215	A1 Before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments.
Examination	20010503	Request for preliminary examination prior to end of 19th month from priority date

20/5/34 (Item 34 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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00761693 \*\*Image available\*\*

BALL GAME APPARATUS

MACHINE POUR JEU A BALLE

Patent Applicant/Inventor:

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Surrey RH9 8NB, GB, GB (Residence), GB (Nationality)

Legal Representative:

Fry Alan Valentine, Fry Heath & Spence, The Old College, 53 High Street,  
Horley, Surrey RH6 7BN, GB

Patent and Priority Information (Country, Number, Date):

Patent: WO 200074801 A1 20001214 (WO 0074801)

Application: WO 2000GB2008 20000525 (PCT/WO GB0002008)

Priority Application: GB 9912763 19990602

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE

DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC

LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI

SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: A63B-069/00

International Patent Class: A63B-069/36

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 3450

English Abstract

Apparatus for practising the technique of lofting a ball comprises a support frame containing two upright supports linked by a horizontal cross-bar. Two inclined guideways extend between ground anchors and the supports. A substantially inelastic reciprocating means is connected to and freely movable along the guideways and a ball connected to said reciprocating means.

French Abstract

Cette invention concerne un appareil qui permet de s'exercer a la technique du lancer de balle en hauteur, et qui comprend un cadre de support comprenant deux supports droits relies par une barre transversale horizontale. Deux elements de guidage sont prevus entre les ancrages au sol et les supports. Un systeme essentiellement inelastique et capable d'effectuer un mouvement de va-et-vient est connecte aux guides et peut se deplacer librement le long de ces derniers, tandis qu'une balle est reliee audit systeme effectuant un va-et-vient.

Legal Status (Type, Date, Text)

Publication 20001214 A1 With international search report.

Examination 20010208 Request for preliminary examination prior to end of 19th month from priority date

20/5/45 (Item 45 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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00525484 \*\*Image available\*\*

APPARATUS FOR SOCCER TRAINING

APPAREIL D'ENTRAINEMENT AU FOOTBALL

Patent Applicant/Assignee:

DMD SPORTS INC,  
KILLION Darryl,

Inventor(s):

KILLION Darryl,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9956836 A1 19991111

Application: WO 99US10055 19990506 (PCT/WO US9910055)

Priority Application: US 9873903 19980506

Designated States: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE  
ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT  
LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT  
UA UG US UZ VN YU ZA ZW GH GM KE LS MW SD SL SZ UG ZW AM AZ BY KG KZ MD  
RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF  
CG CI CM GA GN GW ML MR NE SN TD TG

Main International Patent Class: A63B-039/00

International Patent Class: A63B-069/00

Publication Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 3676

English Abstract

A sport's **ball** (130) is held in a novel manner within a cradle (110) having multiple arms encircling the **ball**. The arms are **attached** using hook and loop fasteners (140) which are **attached** to a flexible **tether line** (60) that is fastened to a person's waist (40). The **ball** (130) is able to be kicked or punched by the striker and be returned to the area by the elastic **tether** (60).

French Abstract

L'invention se rapporte a un ballon de sport (130) maintenu de facon nouvelle dans un cerceau (110) comportant de multiples bras encerclant le ballon. Ces bras sont fixes a l'aide de fermetures a boucles et crochets (140) qui sont **attachees** a un filin souple (60) fixe a la taille (40) de la personne. Le joueur peut ainsi frapper ou boxer le ballon (130) qui est ensuite ramene vers lui par le filin elastique (60).

20/5/47 (Item 47 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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00477406 \*\*Image available\*\*

**GOLF STROKE TRAINING APPARATUS**

**DISPOSITIF D'ENTRAINEMENT POUR COUP DE GOLF**

Patent Applicant/Assignee:

NICHOLSON Robert Steven,

Inventor(s):

NICHOLSON Robert Steven,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9908758 A1 19990225

Application: WO 98US16755 19980812 (PCT/WO US9816755)

Priority Application: US 97915338 19970821

Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES

FI GB GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD

MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ

VN YU ZW AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF

CG CI CM GA GN GW ML MR NE SN TD TG

Main International Patent Class: **A63B-069/36**

Publication Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 4695

English Abstract

A golf **stroke** **training** apparatus (10) for developing muscle memory relative to a golf **stroke** . The apparatus (10) includes a flexible **strap** having a shoulder portion (12), a first arm portion (14), and **attachment** device (16) for **attaching** the first arm portion (14) to a golfer's arm (60) and a second arm portion (18) and finger **strap** (22) for **attaching** the second arm portion (18) to a golfer's hand (70) in order to maintain the golfer's wrist in a flexed position during the golf **stroke** . The device is relatively simple, inexpensive to manufacture and substantially maintains the golfer's arms (60, 62) and shoulders (58) in a fixed position relative to one another throughout the golf **swing** so that muscle memory is developed in the golfer relative to the **stroke** .

French Abstract

L'invention concerne un dispositif (10) d'entrainement pour coup de golf destine a developper la memoire musculaire concernant un coup de golf. Ce dispositif (10) comporte une sangle souple dotee d'une partie epaule (12); d'une premiere partie (14) bras; d'un systeme d' **attache** (16) destine a fixer la premiere partie (14) bras a un bras (60) de golfeur; d'une seconde partie (18) bras; d'une sangle (22) pour doigts destinee a fixer la seconde partie (18) bras a une main (70) de golfeur et ce, dans le but de maintenir le poignet du golfeur dans une position repliee au cours du coup de golf. Ce dispositif est relativement simple, de fabrication peu couteuse et maintient sensiblement les bras (60, 62) et les epaules (58) du golfeur dans une position fixe les uns par rapport aux autres pendant le **swing** , de sorte que la memoire musculaire concernant ledit coup est developpee chez ledit golfeur.

20/5/55 (Item 55 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
(c) 2003 WIPO/Univentio. All rts. reserv.

00417016 \*\*Image available\*\*

BALL REBOUND NET

FILET DE RENVOI DE BALLE

Patent Applicant/Assignee:

LIEVENS GROUP L L C,

Inventor(s):

LIEVENS Geert,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9807477 A1 19980226

Application: WO 97US14501 19970815 (PCT/WO US9714501)

Priority Application: US 96699476 19960819

Designated States: AU BR CA JP KR MX AT BE CH DE DK ES FI FR GB GR IE IT LU  
MC NL PT SE

Main International Patent Class: A63B-061/00

Publication Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 5872

English Abstract

A **ball** returning device (10) comprising a frame (38) and a net (20) disposed within the frame (38), wherein the horizontal members (34) of the frame (38) are nonlinear so that the **attached** net (20) is in two sections having a nonlinear angle therebetween. In an alternate embodiment of the present invention, the net (20) is connected to three upstanding members (30, 46) in a nonlinear alignment so that two sections are formed in the net (20). The adjacent, nonlinear sections in the net (20) improve the **practice** quality of the user for such games as **tennis**

French Abstract

La presente invention concerne un dispositif (10) de renvoi de balles comportant un cadre (38) et un filet (20) menage dans ledit cadre (38) et dans lequel les elements horizontaux (34) du cadre (38) ne sont pas alignes de sorte que le filet (20) peut y etre fixe en deux parties formant un angle possedant une certaine ouverture. Selon un autre mode de realisation de la presente invention, le filet (20) est relie a trois elements de prolongement non alignes (30, 46) de sorte que le filet (20) presente deux sections. Les sections non **lineaires** adjacentes du filet (20) ameliorient la qualite de l'entrainement d'un utilisateur pour des jeux comme le **tennis**.

20/5/57 (Item 57 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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00401186 \*\*Image available\*\*

**AN APPARATUS AND METHOD FOR IMPROVING A GOLFER'S SWING**  
**APPAREIL ET PROCEDE DESTINES A AMELIORER LE SWING D'UN GOLFEUR**

Patent Applicant/Assignee:

CLARK James Elwood III,

Inventor(s):

CLARK James Elwood III,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9741930 A1 19971113

Application: WO 97US7433 19970502 (PCT/WO US9707433)

Priority Application: US 96643271 19960503

Designated States: AU BR CA CN JP KR MX NO NZ RU SG UA US AT BE CH DE DK ES  
FI FR GB GR IE IT LU MC NL PT SE

Main International Patent Class: **A63B-069/36**

Publication Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 5798

English Abstract

This invention is an apparatus and method to improve a golfer's **swing**, the golfer having a leading arm and a trailing arm, the golfer's **swing** having a back **swing** portion, a down **swing** portion, a follow through portion; the apparatus having a chest loop (10) adapted to encircle the chest area of a golfer, a biceps loop (20) connecting to the biceps area and adapted to encircle the biceps area of the leading arm of a golfer, a forearm loop (40) connecting to the chest loop and adapted to encircle the forearm area of the leading arm of a golfer where the biceps loop (20) and the forearm loop (40) are further adapted to cooperate during a golf **swing** to restrain the elbow of a golfer's leading arm from detaching during the follow through portion of a golf **swing**, and to have substantially no impact on the golfer's leading arm during the back **swing** and down **swing** portion of a golf **swing**.

French Abstract

L'invention porte sur un appareil et un procede destines a ameliorer le **swing** d'un golfeur, le golfeur presentant un bras dirigeant le mouvement et un bras suivant le mouvement, et le **swing** du golfeur etant constitue d'une phase de montee du **club**, d'une phase de descente du **club**, et d'une phase d'accompagnement du **club**. L'appareil comporte: une sangle pectorale, (10) entourant le torse du golfeur, une sangle de biceps (20) reliee a la zone du biceps et concue pour entourer la zone du biceps du bras dirigeant le mouvement du golfeur, une boucle d'avant bras (40) reliee a la boucle pectorale et concue pour entourer la zone de l'avant bras du golfeur. La boucle de biceps (20) et la boucle d'avant bras (40) sont de plus faites pour cooperer lors d'un **swing** pour empecher le bras dirigeant le mouvement du golfeur de se detacher pendant l'accompagnement du **swing** en n'ayant pratiquement aucun impact sur le bras dirigeant le mouvement pendant la phase de montee du **club** et la phase de descente du **club** d'un **swing** de golf.



20/5/58 (Item 58 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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00393922 \*\*Image available\*\*

IMPROVED GOLF SWING TRAINER

DISPOSITIF AMELIORE D'ENTRAINEMENT AU BALANCE DE GOLF

Patent Applicant/Assignee:

ALBERTSSON Peter S,

Inventor(s):

ALBERTSSON Peter S,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9734665 A1 19970925

Application: WO 97US3731 19970317 (PCT/WO US9703731)

Priority Application: US 96618299 19960318

Designated States: AU CA CN JP KP KR MX NO NZ SG AT BE CH DE DK ES FI FR GB  
GR IE IT LU MC NL PT SE

Main International Patent Class: A63B-069/36

Publication Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 4914

#### English Abstract

A golf **swing trainer** (50) which includes the following: a) a rigid brace (51) having an inner side and an outer side, said inside of said brace being adapted to conform to, and having an angle which conforms to an angle being formed by the top surface of a golfer's hand, the wrist and lower portion of a golfer's forearm when the wrist is flexed upwardly; b) a first **strap** (53) **attached** to the outer surface of said brace (51), said first **strap** (53) being adapted to circumscribe the index finger of the golfer's hand; c) a second **strap** (55) **attached** to the outer surface of said brace, said second **strap** (55) being adapted to circumscribe the lower forearm near an end of the brace opposite the end to which the first **strap** (53) is **attached** ; and d) a system of removable parts (65-67) for adjusting the angle of the brace on the golfers's hand.

#### French Abstract

L'invention porte sur un dispositif d'entrainement au balance de golf (50) constitue des elements suivants: a), une piece de renfort rigide (51) pourvue d'un cote interne et d'un cote externe, le cote interne etant adapte pour epouser un angle forme par la surface superieure de la main, du poignet et de la partie inferieure de l'avant-bras du golfeur lorsque le poignet est flechi vers le haut, ou bien formant un angle les epousant, b), un premier bracelet de fixation (53) fixe a la surface externe de ladite piece de renfort (51) et adapte pour enserrer l'index du golfeur, c), un second bracelet (55) fixe a la surface externe de ladite piece de renfort et adapte pour enserrer la partie inferieure de l'avant-bras pres d'une extremite de la piece de renfort a l'oppose de l'extremite a laquelle le premier bracelet (53) est fixe et, d), un systeme constitue par des pieces amovibles (65-67) permettant d'ajuster l'angle de la piece de renfort sur la main du golfeur.

20/5/59 (Item 59 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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00392920 \*\*Image available\*\*  
PRACTICE DEVICE FOR A BALL GAME  
DISPOSITIF D'ENTRAINEMENT POUR JEU DE BALLE

Patent Applicant/Assignee:  
SPORTS & EXERCISE EQUIPMENT LIMITED,  
HOURIHAN James,  
MOONEY Brian Frances,  
RYAN James

Inventor(s):  
HOURIHAN James,  
MOONEY Brian Frances,  
RYAN James,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9733663 A1 19970918  
Application: WO 97IE17 19970312 (PCT/WO IE9700017)  
Priority Application: IE 96212 19960312; IE 96459 19960620

Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DE DK EE  
ES FI GB GE GH HU IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK  
MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG US UZ VN YU  
GH KE LS MW SD SZ UG AM AZ BY KG KZ MD RU TJ TM AT BE CH DE DK ES FI FR  
GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG

Main International Patent Class: A63B-069/00

Publication Language: English

Fulltext Availability:

Claims

Fulltext Word Count: 1055

#### English Abstract

A **practice** device (1) is disclosed which is suitable for **practising** a game where a moving **ball** is hit with a **stick**, **bat** or **racket**. The device (1) comprises a support post (3), one or more rotation joints (4) on the support post (3), and two or more arms (5) disposed substantially symmetrically about the or each rotation joint (4). A **ball** (7) is connected or **tethered** at the end of each arm (5).

#### French Abstract

Cette invention concerne un dispositif d'entrainement (1) qui permet de s'entrainer a un jeu ou l'on frappe une **balle** a l'aide d'un baton, d'une batte ou d'une raquette. Ce dispositif (1) comprend un piquet de support (3), un ou plusieurs joints rotatifs (4) montes sur ledit piquet de support (3), ainsi que deux bras (5) ou plus qui sont repartis de maniere globalement symetrique autour du joint rotatif (4) ou de chacun des joints rotatifs (4), une **balle** (7) etant fixee ou reliee par un filin a l'extremite de chaque bras (5).

20/5/60 (Item 60 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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00383423 \*\*Image available\*\*

**GOLF PRACTICE DEVICE**

**DISPOSITIF POUR PRACTICE DE GOLF**

Patent Applicant/Assignee:

FIELD Edward J,

Inventor(s):

RODERICK Anthony G,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9724166 A1 19970710

Application: WO 96US20211 19961218 (PCT/WO US9620211)

Priority Application: US 95578909 19951227

Designated States: AU CA CN JP AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL  
PT SE

Main International Patent Class: **A63B-069/36**

Publication Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 2561

English Abstract

A golf **practice** device (10) includes a **tethered practice ball** (12) which enables the user to **practice** full- swing golf shots in an area as small as 25-30 feet in length and which when hit properly immediately returns the **practice ball** (12) toward the user for re-hitting. The **practice ball** (12) consists of a low resilient urethane foam **ball**, generally of the size of a conventional golf **ball**, which is **attached** to an elastic **cord** (14). The elastic **cord** (14) is **attached** to a swivel element (16) which is, in turn, **attached** to a **non - elastic cord** (18). The **non - elastic cord** (18) is **attached** to a bag (20) which is weighted down with a removable weight element (48), such as sand, pennies or the like. In use, the weight element (48) weighs the bag (20) down, the elastic **cord** (14) functions to return the **ball** (12), and the swivel element (16) permits relative rotation of the elastic and **non - elastic cords** (14, 18).

French Abstract

La presente invention concerne un dispositif pour **practice** de golf (10) constitue d'une **balle de practice** captive (12) permettant a l'utilisateur de s'entraîner aux coups de golf avec **swing** complet dans des zones n'excedant pas une longueur de 25 a 30 pieds, et, en cas de frappe correcte, renvoyant immediatement la **balle de practice** (12) vers l'utilisateur pour un nouveau coup. Cette **balle de practice** (12) est constituee d'une **balle** en mousse d'urethane faiblement elastique, generalement de la taille d'une **balle** de golf classique, retenue par un **cordon** elastique (14). Ce **cordon** elastique (14) est fixe a un emerillon (16), lui-meme retenu par un **cordon** non elastique (18). Ce **cordon** non elastique (18) est retenu par un sac (20) lesté d'un lest amovible (48) tel que du sable ou de la menue monnaie. En pratique, le lest (48) lesté le sac (20), le **cordon** elastique (14) fait revenir la **balle** (12), et l'emerillon (14) permet une rotation entre le **cordon** elastique (14) et le **cordon** non elastique (18).

20/5/61 (Item 61 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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00375481 \*\*Image available\*\*

PRACTICE DEVICE

DISPOSITIF POUR EXERCICE

Patent Applicant/Assignée:

CRIPE Larry Duane,

Inventor(s):

CRIPE Larry Duane,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9716224 A1 19970509

Application: WO 96US16962 19961101 (PCT/WO US9616962)

Priority Application: US 956166 19951102

Designated States: AL AM AT AU AZ BB BG BR BY CA CH CN CZ DE DK EE ES FI GB

GE HU IL IS JP KE KG KP KR KZ LK LR LS LT LU LV MD MG MK MN MW MX NO NZ

PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG UZ VN KE LS MW SD SZ UG AM

AZ BY KG KZ MD RU TJ TM AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT

SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG

Main International Patent Class: A63B-069/00

Publication Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 8775

English Abstract

A **practice** device (40) for improving **batting**, pitching, and fielding skills. The device (40) includes a backstop (42) which can be adjusted at different angles to the vertical to return **balls** striking the backstop (42) on the ground or in the air. With the device (40) configured for **batting practice**, a **ball** (46) is positioned at a selected height above and at a selected location across the span of a home plate (62) by a suspension system (44) which includes a cantilevered arm (83) fixed to the backstop (42), a **tether** (100), and a motion damping arrangement (94) which almost instantaneously brings the **tethered ball** (46) to rest after the **ball** (46) is struck and rebounds to its rest position. The components of the **practice** device (40) can be quickly folded or otherwise positioned against the backstop (42) to provide a compact, easily stored package. The **practice** device (40) can also be easily configured as a wheeled cart and easily moved from one location to another along with **ball** bags and other equipment that are stowed on the cart.

French Abstract

Dispositif pour exercice (40) permettant de s'entraîner à manier la batte, ainsi qu'à lancer et arrêter une **balle**. Le dispositif (40) comprend un filet d'arrêt (42) qui peut être placé à différents angles par rapport à la verticale de façon à renvoyer les balles qui le touchent sur le sol ou en l'air. Quand le dispositif (40) est configuré pour un entraînement au maniement de la batte, une **balle** (46) est positionnée, à une hauteur sélectionnée au-dessus d'un marbre (62) et à un emplacement sélectionné dans la largeur du marbre (62), par un système de suspension (44) comprenant un bras en saillie (83) fixe au filet d'arrêt (42), une amarre (100) et un système d'amortissement du mouvement (94), qui amène presque instantanément la balle amarree (46) au repos une fois qu'elle a été frappée et qu'elle rebondit vers sa position de repos. Les composants du dispositif d'exercice (40) peuvent être repliés rapidement ou positionnés différemment contre le filet d'arrêt (42), de façon à

constituer un paquet compact facile a ranger. Le dispositif peut également prendre la configuration d'un chariot a roulettes et etre deplace facilement d'un endroit a l'autre, accompagne de sacs de balles et de tout autre materiel arrimes sur le chariot.

20/5/65 (Item 65 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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00333324

**GOLF PRACTICE APPARATUS**  
**APPAREIL D'ENTRAINEMENT AU GOLF**

Patent Applicant/Assignee:

DOSCH Thomas J,  
DOSCH Joseph,

Inventor(s):

DOSCH Thomas J,  
DOSCH Joseph,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9615835 A1 19960530

Application: WO 95US15102 19951113 (PCT/WO US9515102)

Priority Application: US 94339597 19941114

Designated States: AM AT AU BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU  
JP KE KG KP KR KZ LK LR LT LU LV MD MG MN MW MX NO NZ PL PT RO RU SD SE  
SI SK TJ TT UA UZ VN KE LS MW SD SZ UG AT BE CH DE DK ES FR GB GR IE IT  
LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG

Main International Patent Class: **A63B-069/36**

Publication Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 7807

English Abstract

This invention is a golf **practice** apparatus utilizing a **tethered** golf **ball** wherein the kinetic energy by an energy dissipator (26) after the **ball** is struck. Initial velocity vectors in the x, y, and z coordinates are derived by time integrating the respective forces detected by a strain gage assembly (30) over the period of time during which the kinetic energy is dissipated (45). From these derived velocity vectors a computer (38) computes what the trajectory of the golf **ball** would have been if it had been untethered. Alternatively, two of the initial velocity vectors may be derived as described above and the third obtained mathematically after first deriving total initial velocity. Golf **ball** spin about a vertical axis may be obtained for correction to the trajectory by means of a reflective strip (213) on the ground facing surface of the golf **club** head and two or more sensors (32, 222) for detecting the reflections from opposite ends of the strip. A circuit for time integration of the force components (45) includes a negative feedback integrator including a feedback circuit which is open during a time when force component signals are being received thereby effecting cancellation of effects of offsets inherent in strain gages and amplifiers.

French Abstract

L'invention est un appareil d'entrainement au golf utilisant une **balle** de golf **attachee** dans laquelle l'energie cinetique est dissipee par un dissipateur (26) d'energie au moment ou on la frappe. Des vecteurs initiaux de vitesse dans les coordonnees x, y, z sont derives par integration dans le temps des forces respectives detectees par un ensemble jauge de contrainte (30) sur une duree au cours de laquelle l'energie cinetique se dissipe (45). A partir de ces vecteurs de vitesse derives, un ordinateur (38) calcule ce qu'aurait ete la trajectoire de la **balle** si celle-ci n'avait pas ete **attachee**. Selon une variante, deux des vecteurs de vitesse initiaux peuvent etre derives de la facon decrite

ci-dessus et le troisieme peut etre obtenu mathematiquement apres avoir derive la vitesse initiale totale. La vitesse de rotation de la **balle** de golf autour d'un axe vertical peut etre determinee en vue de la correction de la trajectoire a l'aide d'une bande reflechissante (213) se trouvant sur la semelle de la tete du **club** de golf, et au moins deux detecteurs (32, 222) servent a detecter les reflexions provenant des extremités opposees de la bande. Un circuit d'integration dans le temps des composantes de force (45) comprend un integrateur de contre-reaction negative renfermant un circuit de reaction qui est ouvert pendant un intervalle au cours duquel les signaux des composantes de force sont recus, ce qui annule les effets de decalages inherents aux jauges de contrainte et aux amplificateurs.

20/5/69 (Item 69 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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00273160

**BALL GAME USING ELASTIC CORDS**  
**JEU DE BALLE COMPRENANT L'UTILISATION DE CORDONS ELASTIQUES**

Patent Applicant/Assignee:

BROADWAY Robert M,

Inventor(s):

BROADWAY Robert M,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9421336 A1 19940929

Application: WO 94CA154 19940317 (PCT/WO CA9400154)

Priority Application: CA 2091914 19930318

Designated States: AT AU BB BG BR BY CH CN CZ DE DK ES FI GB HU JP KP KR KZ

LK LU MG MN MW NL NO NZ PL PT RO RU SD SE SK UA US VN AT BE CH DE DK ES

FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG

Main International Patent Class: **A63B-069/38**

Publication Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 2271

English Abstract

An elasticized **ball** game is provided in which a **ball** (18) is **attached** to one end of a first elastic **cord** (16), the other end of which is **attached** to the ends of two further elastic **cords** (12, 13), the free ends of the latter two **cords** being connected to two spaced-apart posts (23, 24). In a preferred embodiment, a **non - elastic cord** (3) is strung under tension between the posts (23, 24) and the free ends of the second two elastic **cords** (12, 13) are mounted to the **non - elastic cord** (3) adjacent its opposite ends.

French Abstract

Un jeu de **balle** a **cordons** elastiques est decrit, dans lequel une **balle** (8) est rattachee a une extremite d'un premier **cordon** elastique (16), dont l'autre extremite est rattachee aux extremités de deux autres **cordons** elastiques (12, 13). Les extremités libres de ces derniers sont rattachees a deux montants espaces (23, 24). Selon un mode prefere de realisation, un **cordon** non elastique (23, 24) est fixe sous tension entre les montants (23, 24), et les extremités libres des deux **cordons** elastiques (14, 15) sont rattachees au **cordon** non elastique (13), a proximite de ses extremités opposees.



Set	Items	Description
S1	285982	BALL? ? OR BIRDIE? ? OR BASEBALL? OR SHUTTLECOCK? OR SHUTT- LE()COCK? ?
S2	467236	BAT OR BATS OR RACKET? OR RACQUET? OR CLUB? OR STICK? OR C- RICKETBAT? OR HOCKEYSTICK? OR BASEBALLBAT OR BADMINTION OR TE- NNIS OR BASEBALL OR ROUNDERS OR CRICKET OR CROQUET?
S3	2339900	PRACTIC? OR PRACTIS? OR TRAIN? OR EXERCIS? OR EXERCIZ? OR - SKILL(2N)IMPROV?
S4	164897	SWING? OR BATTING OR STROKE? ? OR STROKING
S5	339570	CABLE? OR CABLING OR TETHER? OR ANCHOR?
S6	364789	TIE OR TIED OR TIES OR TYING OR ATTACH?
S7	3560382	CORD? OR LINE? OR ROPE? OR STRING? OR STRAP? OR LEASH?
S8	430605	GUIDEWAY? OR GUIDE() (WAY OR WAYS) OR TRACK? OR RAMP?
S9	67387	(SLIDE? ? OR SLIDING OR GLIDE? ? OR GLIDING OR MOVE? ? OR - MOVING OR MOVEMENT) (3N) (CLIP? OR RING? OR SLIDE? OR ROPE? OR - LOOP?)
S10	0	IC=A63B?
S11	9607	SLACK? OR UNTAUT? OR NONTAUT? OR NOTTAUT? OR (UN OR NON) () - (TAUT OR TENSION? OR TIGHT?) OR UNTIGHT? OR NONTIGHT? OR NOTT- IGHT? OR UNTENSION? OR NONTENSION? OR NOTTENSION?
S12	112284	FLACCID? OR LIMP?? OR LAX OR LAXLY OR LAXILY OR INELASTIC? OR UNELASTIC? OR NONELASTIC? OR NOTELASTIC? OR (IN OR UN OR N- ON) ()ELASTIC?
S13	9617	S1 AND S2 AND S3:S4
S14	3077	S13 AND S1:S2(10N)S3:S4
S15	0	S14 AND S11:S12(5N)S5:S7
S16	0	S13 AND S11:S12(5N)S5:S7
S17	0	S14 AND S11:S12 AND S5:S7
S18	45	S14 AND S8:S9
S19	137	S13 AND S8:S9
S20	137	S18:S19
S21	16	S20 AND S5:S7
S22	0	S20 AND S11:S12
S23	16	S21:S22
S24	13	RD (unique items)

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Set	Items	Description
S1	1720676	BALL? ? OR BIRDIE? ? OR BASEBALL? OR SHUTTLECOCK? OR SHUTTLE()COCK? ?
S2	5504342	BAT OR BATS OR RACKET? OR RACQUET? OR CLUB? OR STICK? OR C-RICKETBAT? OR HOCKEYSTICK? OR BASEBALLBAT OR BADMINTION OR TENNIS OR BASEBALL OR ROUNDERS OR CRICKET OR CROQUET?
S3	10403106	PRACTIC? OR PRACTIS? OR TRAIN? OR EXERCIS? OR EXERCIZ? OR -SKILL(2N)IMPROV?
S4	1051790	SWING? OR BATTING OR STROKE? ? OR STROKING
S5	3128778	CABLE? OR CABLING OR TETHER? OR ANCHOR?
S6	3400454	TIE OR TIED OR TIES OR TYING OR ATTACH?
S7	15288138	CORD? OR LINE? OR ROPE? OR STRING? OR STRAP? OR LEASH?
S8	4306639	GUIDEWAY? OR GUIDE() (WAY OR WAYS) OR TRACK? OR RAMP?
S9	609286	(SLIDE? ? OR SLIDING OR GLIDE? ? OR GLIDING OR MOVE? ? OR -MOVING OR MOVEMENT) (3N) (CLIP? OR RING? OR SLIDE? OR ROPE? OR -LOOP?)
S10	0	IC=A63B?
S11	187447	SLACK? OR UNTAUT? OR NONTAUT? OR NOTTAUT? OR (UN OR NON) () - (TAUT OR TENSION? OR TIGHT?) OR UNTIGHT? OR NONTIGHT? OR NOTTIGHT? OR UNTENSION? OR NONTENSION? OR NOTTENSION?
S12	167184	FLACCID? OR LIMP?? OR LAX OR LAXLY OR LAXILY OR INELASTIC? OR UNELASTIC? OR NONELASTIC? OR NOTELASTIC? OR (IN OR UN OR NON) ()ELASTIC?
S13	336473	S1 AND S2 AND S3:S4
S14	332	S13 AND S11:S12(5N)S5:S7
S15	29	S14 AND S1:S2(5N)S3:S4
S16	126	S14 AND S8:S9
S17	12	S15 AND S16
S18	29	S15 OR S17
S19	27	RD (unique items)

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